

Amendments to the Specification:

Please amend the specification as follows:

Please replace paragraphs 0008 to 0024 of the specification with the following rewritten paragraphs:

[0008]

To solve the above problems and to achieve the object, an analog electronic timepiece according to one aspect of the invention of claim 1 includes a driving signal supplying unit configured to generate and supply a reference signal for clocking; an amplifying unit configured to amplify a counter electromotive force generated by a step motor that drives hand motions of time hands; an impact detecting unit configured to detect an impact applied externally based on an output signal level of the amplifying unit; and a controlling unit configured to control to drive the step motor using an intermittent driving pulse based on the reference signal supplied from the driving signal supplying unit when the time hands are in a hand-driven state, and to control to brake the step motor when an impact is detected by the impact detecting unit while the time hands are in a non-hand-driven state. The amplification ratio of the amplifying unit is set to a value that corresponds to at least one of a weight and a moment of inertia of the time hands.

[0009]

Moreover, in the invention according to claim 1 as described above, the analog electronic timepiece according to another aspect of the invention of claim 2 has the amplifying unit that is a chopper-amplifying unit configured to amplify at the amplification ratio based on a predetermined pulse period. The predetermined pulse period is set to a value that corresponds to at least one of the weight and the moment of inertia of the time hand.

[0010]

Furthermore, in the invention according to claim 2 as described above, the analog electronic timepiece according to another aspect of the invention of claim 3 has the a chopper-amplifier unit in which the predetermined pulse period is set further to the power source voltage.

[0012]

Furthermore, in the ~~present~~ invention ~~according to claim 2 or 3 as described above~~, the analog electronic timepiece according to another aspect of the invention of claim 5 has the a chopper-amplifier unit in which a chopper-width is set to 30.5 μ s.

[0013]

Moreover, in the invention ~~according to claim 1 or 2 as described above~~, the analog electronic timepiece according to another aspect of the invention of claim 6 has the controlling unit that includes a lock pulse output unit configured to control the step motor when the impact is detected. The lock pulse output unit outputs a lock pulse for a term corresponding to a power source voltage supplied to the step motor.

[0014]

Furthermore, in the invention ~~according to claim 5 as described above~~, the analog electronic timepiece according to another aspect of the invention of claim 7 has the a lock pulse output unit that is configured to output a continuous pulse having a same phase as that of the driving pulse generated when an impact is applied.

[0015]

Moreover, in the invention ~~according to claim 6 as described above~~, the analog electronic timepiece according to another aspect of the invention of claim 8 has the a lock pulse output unit that outputs the a lock pulse that includes at least a lock term for outputting the a continuous pulse and a stable section for outputting an inversed pulse after the lock terms has passed.

[0016]

Furthermore, in the invention ~~according to any one of claims 1, 2, 6, and 7 as described above~~, the analog electronic timepiece according to another aspect of the invention of claim 9 has the controlling unit that includes a load compensating unit configured to detect rotation of a rotor based on detection of a counter electromotive force from the pulse motor soon after the output of the driving pulse.

[0017]

Moreover, in the invention ~~according to any one of claims 1, 2, 6 and 7 as described above~~, the analog electronic timepiece according to another aspect of the invention of claim 10 has the controlling unit that is configured to provide stable terms respectively for starting

the rotor of the a pulse motor from a stationary stable point thereof before outputting the driving pulse, and for returning the rotor of the pulse motor to the stationary stable point thereof after outputting the driving pulse.

[0018]

Furthermore, in the invention ~~according to any one of claims 1, 2, 6, and 7 as described above~~, the analog electronic timepiece according to another aspect of the invention ~~of claim 11~~ has the an impact detecting unit constituted of inverters that operate based on supply of a source power that is adapted to supply a constant voltage without depending on the a power source voltage.

[0019]

Moreover, in the invention ~~according to claim 8 as described above~~, the analog electronic timepiece according to another aspect of the invention ~~of claim 12~~ has the impact detecting unit that includes an impact detecting resistor configured to detect a counter electromotive force from the a pulse motor at the time of the impact. The load compensation unit includes a load compensating resistor configured to detect a counter electromotive force from the pulse motor soon after the driving pulse is output.

[0020]

Furthermore, in the invention ~~according to claim 11 as described above~~, the analog electronic timepiece according to another aspect of the invention ~~of claim 13~~ has the an impact detecting resistor in which a resistance value is set at the minimal resistance value with which the rotation of the pulse motor is detected.

[0021]

Moreover, in the invention ~~according to claim 11 as described above~~, the analog electronic timepiece according to another aspect of the invention ~~of claim 14~~ has the an impact detecting resistor for which setting is set for each type of timepiece.

[0022]

Furthermore, in the invention ~~according to any one of claims 11 to 13 as described above~~, the analog electronic timepiece according to another aspect of the invention ~~of claim 15~~ includes a detecting resistor used commonly for the impact detecting resistor and the load compensation resistor. The impact detecting unit and the load compensating unit are configured to detect an impact and load compensation using the detecting resistor.

[0023]

Moreover, in the invention ~~according to any one of claims 6, 7, and 11 to 13 as described above~~, the analog electronic timepiece according to another aspect of the invention ~~of claim 16~~ has ~~the~~ a lock pulse output unit that is configured to secure an output term of the lock pulse when ~~the~~ a lock pulse is input at a time of a logic frequency adjustment executed at predetermined intervals.

[0024]

Furthermore, in the invention ~~of any one of claims 6, 7, and 11 to 13 as described above~~, the analog electronic timepiece according to another aspect of the invention ~~of claim 17~~ includes a battery detection controlling unit configured to make the output of the lock pulse precede when the lock pulse is output from the lock pulse output unit at a time of detection of the power source voltage executed at predetermined intervals.